



## Certificate of Derogation from a Railway Group Standard

(in accordance with part 6 of the Railway Group Standards Code)

### 1. Type of deviation

Derogation

Deviation Number: **12/182/DGN**

### 2. Details of applicant:

Network Rail (Investment Projects),  
Floor 3, Desk 054, Elder Gate, Milton Keynes, MK9 1EN

The Quadrant: MK, Furzton,

### 3. Your reference number:

Tracker No. 10182

### 4. Status of applicant:

Infrastructure Manager, RSSB Member

### 5. Title of certificate:

Signal SC8464 Distance to Nantwich Crossing

### 6a. Details of Railway Group Standard (RGS):

RGS Number:	Issue No:	Issue Date:	Title:
GK/RT0192	One	February 2010	Level Crossing Interface Requirements

### 6b. RGS clause(s):

2.1.1.3

### 6c. RGS clause requirements:

"2.1.1.3 Stop signals and ETCS block markers shall be positioned at least 50 m from the level crossing, except where either:

- a) The level crossing is immediately beyond a station platform, in which case the stop signal or ETCS block marker associated with the platform shall be positioned at least 25 m from the level crossing, or
- b) The signalling system is configured so that movement authorities towards the stop signal or ETCS block marker are only displayed when the level crossing is closed to road traffic."

### 7. Scope of deviation:

Signal SC8464, on the Shrewsbury to Crewe Modular Signalling Pilot Scheme, protecting Nantwich MCB-OD Up Approach (wrong direction).

## **8. Impacts of complying with the current RGS requirement:**

GK/RT0192 requires SC8464 at the end of the Down platform at Nantwich to be 25 m from the crossing. The site arrangements at Nantwich do not allow the 25 m distance to be easily achieved, as the end of the platform is only 18 m away from the crossing and is in close proximity to the passenger access/egress to the platform.

Options for compliance would involve non-standard signal structures which would, despite possible use of lightweight structures and thinking, still be up to £20k. Any option that involved platform extension would cost £10k per metre.

A review of the cost and benefits of compliance has been undertaken as per the attached Safety Justification document and comparison to other sites. This has shown that the cost benefit of compliance to GK/RT0192 is only a few hundred pounds.

## **9. Proposed alternative actions:**

Signal SC8464, is proposed to go at 11 m from the level crossing, at a bottom of the platform ramp, with the provision of SPAD mitigation provided but Stowmarket controls as detailed below.

Stowmarket Controls: the RTL's shall illuminate automatically in a normal sequence with Amber followed by flashing reds when a train approaches within 125 m of the crossing. If the route forward is set, the crossing sequence shall continue with barriers lowering and this shall be the normal method of operating the crossing.

## **10. Impacts of the alternative actions:**

Nantwich Down Platform signal SC 8464 is a Wrong Direction signal for Up moves over the crossing, there is no main signalled routes that approach to the Down Platform from the Up direction, all approaches are via shunt signal.

Positioning the signal and associated modular housing off of the platform retains the current platform length and passenger access.

Due to the low proposed use of the signal, the provision of SPAD mitigation for train approaching SC8464 any impacts of the reduction in distance from the crossing are minor. Further justification and review of position is contained in the attached Qualitative Safety Justification and Cost Benefit Analysis.

In summary, the SPAD mitigation proposed would provide adequate warning time (5s of flashing RTLs) to vehicular traffic for train approaching SC8464 and trains starting away from Natwich will be mitigated by good sighting of the signal and view of the crossing.

## **11. What other options have been considered?**

The option of putting the signal in rear of the Down Platform and applying for a derogation different derogation were discounted due to SC8464 needing to be parallel to SC8466 and the effects on road closure of moving both signals.

Options for positioning signal on the platform were considered, but the costs of these options and difficulties in implementing them for the minor safety benefit ruled out these options.

Only simple options were reviewed due to the fact that there are no timetabled moves up to SC8464.

Further details on options considered for SC8464's position and a Qualitative Safety Justification and Cost Benefit Analysis for these is included in the attached document.

## **12. Consultation with affected parties**

Arriva Train Wales project consultation on the proposed solution undertaken on 30/11/2011 and as part of the signal sighting process.

DB Schenker, Freightliner, other FOCs who might use the route, companies who run yellow plant - these did not object to the original formal consultation as part of previous Tracker 8772 for this location.

## **13. Additional actions/observations:**

Upon receipt, the applicant is required to identify affected, interfacing parties and copy this certificate, together with supporting information, to those parties.

Attachment:

- Qualitative Safety Justification and Cost Benefit Analysis for the Positioning of SC8464 Signal at Nantwich, dated 02/10/2012, Version 1.3.

**14. Method of elimination:**

N/A

**15. Start and end date:**

N/A

**16. Signature of applicant:**

(Signals), Head of Signal Engineering

**Date of application:**

27/09/2012

**17. Lead Standards Committee details:**

**Name of Committee:**

Control Command and Signalling

**Date of meeting**

08/11/2012

**Minute reference:**

12/CCS/11/227

**Authorised by:**

Signed by Jeff Allan on 27/11/2012

**Date of Authorisation:**

27/11/2012

Jeff Allan

Head of Delivery, Control Command & Signalling, and Energy